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(54) Device for displaying advertisement on conveyors.

(57) This device basically consists of posters which are made out of suitable materials, are shaped and printed with the desired advertisement, are set in place by adhesion to the belt-plates forming the conveyor belt, and then are specially cut and perforated as required, so that the posters: a) properly carry advertising messages on conveyors; b) conform to any shape of conveyors; c) stay smoothly adhered to any top surface of the belt-plates; d) endure damage from objects transported by the belts; e) are precisely cut, when applicable, along the contours of adjacent belt-plates to allow free rotation on curved tracks; f) have small strategic holes, when applicable, to allow free maintenance access to fasteners in the belt-plates; and g) are easily installed, displayed, replaced and removed without ever interfering with the operation and maintenance of conveyors. The device creates a new powerful advertising medium in any airport baggage conveyor as the focus of a large mass of selected public.

To be used on conveyor systems.

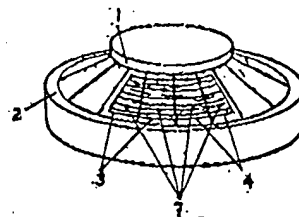


Figure 6

The protection requested in this patent application must be understood to encompass the essence of the following description. Although a best effort is made to explicitly describe the cases, forms and variations to which the basic invention can be applied, it is unavoidable to narrow down its description to a few practical examples in order to make it intelligible. Therefore, the descriptions, drawings, explanations, and examples contained herein are to be taken only as a means to convey the essence of the basic invention, and any modifications derived therefrom must be included in the requested protection.

In its most general terms, the device object of this patent application can be described as consisting of properly prepared posters displaying advertising messages which are set in place over the belt-plates forming the belt of a conveyor. It is particularly applied to any baggage conveyor used at airports.

Precedents on inventions and patents for publicity devices and advertising media, as well as their great importance in the modern world, are common knowledge. The value of these devices and media increases with their capability to attract attention to selected audiences.

This device creates a new and unexploited advertising medium with a unique character. It is strategically located at the meeting point of a mass of air travellers with expending means, avid of local information, and captive around the conveyor while waiting for the baggage arrivals. Further, it is entertaining, both in the form presented and in its imaginative possibilities, transforming an ordinary conveyor into a lively focus of attention.

The advertising posters are the main focal point of this device. They are made out of thin but strong materials, such as sheets of polyethylene or similar synthetics. They are sized and shaped according to the desired advertising messages or designs, within the area limits provided by the belt of a particular conveyor. The advertising messages or publicity designs displayed by the posters are printed in indelible, scratch-free printing inks. The posters are set in place, wrinkle-free, by means of pressure-sensitive adhesives or similar adhesive emulsions. Then, by means of a cutting process, the posters are adapted to each type of conveyor, as described below. When required, the posters also have small access perforations aligned with maintenance fasteners sometimes located on the belt-plates underneath.

In its overall conception, the materials, sizes and shapes, printing, adhesion, settings, cutting process, and perforations, are all selected and designed to assure that the posters: (a) properly meet their advertising displaying objective on any conveyor; (b) set and stay firmly in place, yet are

easily removed and replaced; (c) never interfere with the operation and maintenance of conveyors; and, (d) endure the wearing and tearing of baggages and other objects transported on conveyors.

In the following lines it is described the specific adaptation to any type of conveyor under any possible condition. In order to assist the description, two pages of drawings containing seven figures are attached to this application and made part thereof, as examples of the essence of the invention.

Case (A); Elongated conveyors with non-overlapping belt-plates on which posters are set in place over several belt-plates. By being elongated (as opposed to circular), these conveyors have straight tracks and curved tracks.

Figure 1 represents a partial view of a straight track, showing: The rails (1, 2) between which the belt-plates (3, 4) run in their transport motion; the contours (5, 6 - arched in this example) of the belt-plates; and one advertising poster (7) set in place over several belt-plates (3, 4). During the transport motion through straight tracks, all belt-plates keep the same relative position to each other. As a result, all posters (9) are fully readable and composed as originally intended through the straight tracks.

Figure 2 represents a view of a curved track of the same elongated conveyor represented in Figure 1, showing: The rails (1, 2); the same belt-plates (3, 4) turning through the curved track; their contours (5, 6); and the same poster (7). During the transport motion through curved tracks, each belt-plate rotates on itself, changing the relative position to each other.

For this reason, each poster (7) set in place over several belt-plates (3, 4) is cut along each belt-plate contour (5, 6) in order to allow for the free rotation play of the belt-plates in their transport motion through curved tracks. This cutting process leaves each poster unit divided in a number of portions (four in this example) which correspond to the same number of belt-plates underneath, as shown in Figure 3. Since there is a small but definite gap between each adjacent belt-plates, two cuts per gap are made (8) and the poster material between cuts is then removed to prevent any interference with the free rotation play of each belt-plate.

Thus, after the cutting process described above, each portion of the poster set in place over its corresponding belt-plate also rotates on itself, changing the relative position to each other, as shown in Figure 2.

As a result, all poster units (7) which were fully readable and composed as originally intended through straight tracks, now breakdown as puzzles through curved tracks (as shown in Figure 2), only to recompose themselves and become fully reada-

ble again through the next straight track (as shown in Figure 1).

This puzzle effect can also be accomplished, of course, in reverse. In this case, the posters are set in place at curved tracks as fully readable and composed units to which the cutting process is applied, and then these poster units breakdown as puzzles through straight tracks. The puzzle effect occurs in all elongated conveyors.

Figure 3 represents a poster unit, as mentioned above. It also shows the small perforations (9) sometimes required to provide access to maintenance fasteners on the belt-plates underneath.

As described and shown above, the device, by means of the cutting process, fully meets its advertising displaying objective both through the conveyor's straight and curved tracks. The adaptations to any other type of conveyor are simple modifications or variations, which are part of this patent application, to the basic device as described for case (A).

Case (B): Elongated conveyors with non-overlapping belt-plates on which each poster is set in place over a single belt-plate. This case is identical to case (A) except that each poster is confined to a single belt-plate.

Thus, in this case, posters are simply set in place without applying any cutting process, since they never interfere with the free rotation play of any belt-plate in its transport motion through curved tracks.

Case (C): Elongated conveyors with overlapping belt-plates on which posters are set in place over either one or several belt-plates.

The belt-plates in these conveyors partially overlap each other on their transport motion through curved tracks. The overlapping area is always equal and well defined on all belt-plates, and only covers up to a maximum of one-half of their total area, leaving at least another one-half area never overlapped on each belt-plate.

Thus, in this case, posters are designed to display advertisement only on the corresponding areas of the belt-plates which never overlap. They are set in place, and then their blank, unprinted portions are cutoff and removed to prevent any interference with the overlapping action.

Figure 4 represents a partial view of a typical elongated conveyor with overlapping belt-plates, showing: The rails (1, 2); the straight track (10); the curved track (11); the belt-plates (3, 4 - rectangular in this example); the belt-plate contours (5, 6 - straight in this example); the overlapping areas on the belt-plates (3, 4); and two posters (7) with their blank portions removed, as they run through straight and curved tracks.

Figure 5 represents an example of a poster unit adapted to the elongated conveyor with over-

lapping belt-plates represented in Figure 4, showing: The printed areas (7); the gaps (8); and the maintenance access perforations (9).

Case (D): Any circular conveyor on which posters are set in place over either one or several belt-plates. By being circular, the belt-plates in these conveyors always keep the same relative position to each other, never overlapping in their transport motion through the circular track.

Thus, in this case, posters are simply set in place without applying any cutting process.

Figure 6 represents a view of a typical circular conveyor, showing: The rails (1, 2); the belt-plates (3, 4); and a poster (7).

Figure 7 represents an example of a poster (7) adapted to the circular conveyor represented in Figure 6, showing: Its possible truncated-cone shape to optimally conform the shape of this circular conveyor; the absence of any cuts or gaps, and the maintenance access perforations (9).

After completing above the description of the present invention, the points of protection are expressed in the following

Claims

1. Device for the displaying of advertisement on conveyors, basically consisting of posters carrying advertising messages which are set in place over any belt-plates forming the belts of both elongated and circular conveyors.
2. Device, according to claim 1, by which posters are made out of thin but strong materials such as sheets of polyethylene or similar synthetics, on which advertising messages are printed in indelible scratch-free inks, and then set in place wrinkle-free by pressure-sensitive adhesives or similar adhesive emulsions over the belt-plates of conveyors, all together designed so that posters can: duly display advertisements on conveyor belts; be properly installed over any belt surface and then be easily removed and replaced; and reasonably endure the wearing and tearing of baggages and other objects transported on conveyors.
3. Device, according to claim 1, by which the size and shape of posters can vary within the limits allowed by all or part of either one or several belt-plates, so designed as to conform conveniently with any shape of conveyor but never to interfere with the free transport motion of any type of conveyor through its entire track.
4. Device, according to claim 1, by which posters are provided, when required, with small perforations directly aligned with maintenance fas-

teners sometimes located on the belt-plates underneath in such a way that while these perforations are inconspicuous to the posters' appearance they allow normal access for installation and removal of belt-plates in conveyors.

5. Device, according to claim 1, by which each poster can be set in place over several non-overlapping belt-plates in any elongated conveyor with straight and curved tracks, in which case each poster is precisely cut along the contours of each adjacent belt-plate covered by the poster in order to allow for the free rotation play of these belt-plates in their transport motion through curved tracks.
6. Device, according to claim 1, by which each poster can also be set in place over each single non-overlapping belt-plate in any elongated conveyor, in which case posters do not require any cut as they do not interfere with the free rotation play of any belt-plates in their transport motion through curved tracks.
7. Device, according to claim 1, by which each poster can also be set in place over either one or several overlapping belt-plates in any elongated conveyor, in which case the printed advertising portions of the poster is simply reduced to the corresponding non-overlapping areas of the belt-plates, and then the blank, unprinted portions of the poster are cutoff and removed to prevent interference with the overlapping action.
8. Device, according to claim 1, by which each poster can also be set in place over either one or several belt-plates in any circular conveyor, in which case each poster does not require any cut as these belt-plates always keep the same relative positions to each other, and thus never overlap, in their transport motion through the circular track.
9. Device, according to claim 1, by which posters are fully readable and composed as intended through the straight tracks of any elongated conveyor as well as through the entire track of any circular conveyor, but then posters breakdown as puzzles in elongated conveyors through the curved track, only to recompose themselves and become readable again through the next straight track, thus creating an interesting puzzle effect.
10. Device, according to claim 1, by which a similar puzzle effect can also be created on elon-

gated conveyors in reverse, in which case posters are fully readable and composed as intended through a curved track, breakdown as puzzles through the following straight track, and recompose themselves to become readable again through the next curved track.

11. Device, according to claim 1, by which several more puzzle effects can be created on elongated conveyors by imaginatively combining both puzzle effects, and by adding the partially printed posters set on overlapping belt-plates, thus offering multiple settings of strong publicity value in this unique medium.
12. Device, according to claim 1, by which this invention is fully designed to include all practical details for its production and application at any belt conveyor, thus creating a new and unexploited advertising medium of exceptional value on any airport baggage conveyor as the attention focus of an increasingly large mass of selected public.

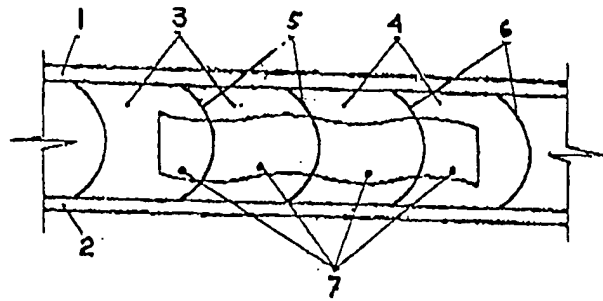


Figure 1

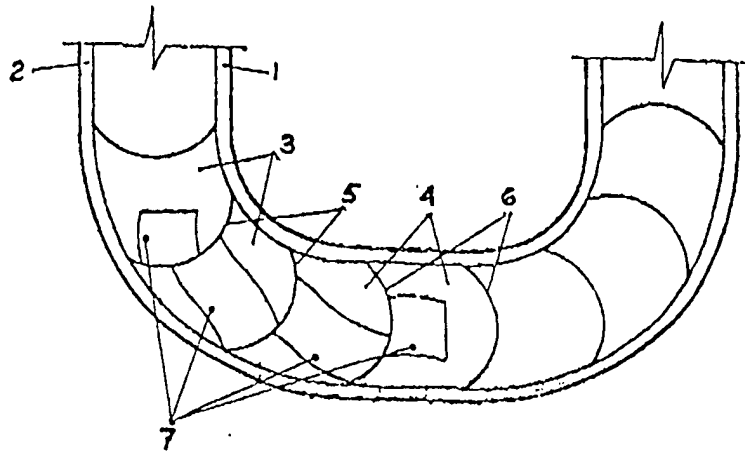


Figure 2

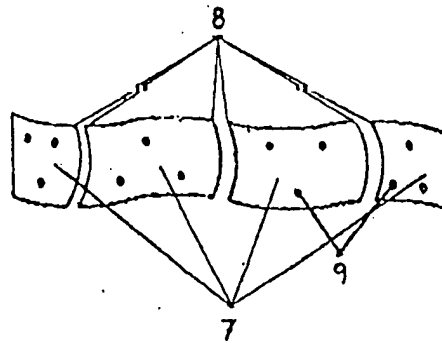


Figure 3

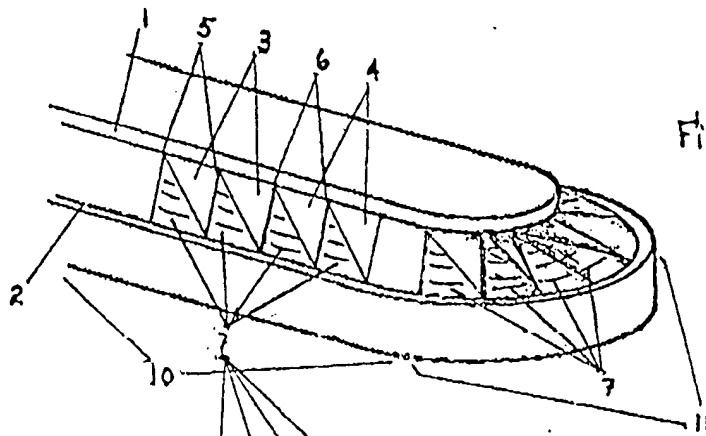


Figure 4

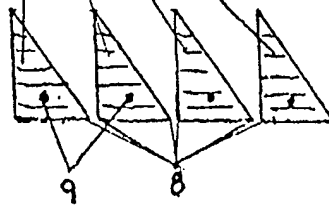


Figure 5

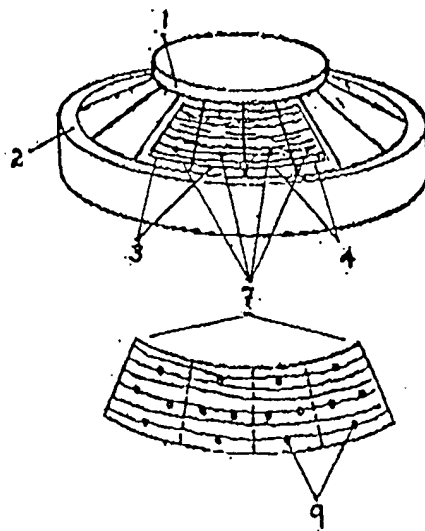


Figure 6

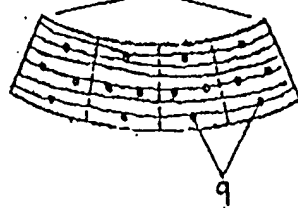


Figure 7



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EUROPEAN SEARCH REPORT

Application Number

EP 90 56 0001

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	US-A-3 881 592 (J. STIMPSON) * Abstract; figure 1 * - - - -	1	G 09 F 19/02 G 09 F 19/22 G 09 F 23/00
A	GB-A-2 044 715 (MECHANDEX) - - - -		
E	EP-A-0 400 250 (J. MÜNKNER et al.) * The whole document * - - - - -	1-3,5,6,8, 9	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			G 09 F B 65 G
The present search report has been drawn up for all claims			
Place of search		Date of completion of search	Examiner
The Hague		16 May 91	GALLO G.G.
<div>CATEGORY OF CITED DOCUMENTS</div> <div>X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention</div> <div>E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons ----- &: member of the same patent family, corresponding document</div>			